

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed February 12, 2207 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 9-16, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thiele et al. (US 4,599,283) in view of Oosaki et al. (US 5,689,173) and Hasunuma et al. (WO , with US 2007/0210893 used as translation).

Thiele et al. teach a battery assembly wherein the battery has a first contact pole (20) and a second contact pole (16), a first connecting line (32) and a second connecting line (28), and a plug (30) to connect the contact poles with a load (Figure 2). The skilled artisan would recognize that the removal of one of the batteries in the assembly of Thiele et al. would be obvious for applications requiring less power, and the

Art Unit: 1795

connecting lines assembly would function in the same way when adjusted to connect both poles to the plug.

With regard to claims 3, 4, 15, and 16, it would have been obvious to the skilled artisan to change the size of the battery to well known battery sizes, since the battery must fit in the device it is being used to power. It has been held that such a modification would have been within the level of ordinary skill in the art. MPEP 2144.04 IV.

As for claims 9 and 20, Thiele et al. teach a plug (30) (Figure 2).

Regarding claim 10, the skilled artisan would recognize that the contact poles and electrical contacts, or connecting lines of Thiele et al., would necessarily be isolated from the environment, since if there was an electrical connection to the poles aside from to the load, the load would not receive all of the power from the battery.

With regard to claim 11, the skilled artisan will recognize that either the negative or the positive may be called the "first contact pole," and that the arranging of the parts of the battery is within the ordinary level of skill in the art. MPEP 2144.04 VIC.

Thiele et al. fail to teach a resistor attached to the housing.

Oosaki et al. teach a safety device for a battery including a resistor that is provided within the battery housing (column 2 lines 60-63; column 3 lines 5-18).

As for claims 2 and 14, the housing includes a heat-shrink tubing (column 4 lines 19-22).

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide a resistor in the battery of Thiele et al. such as in Oosaki et al. in order to ensure the safe operation of the battery.

Thiele et al. in view of Oosaki et al. fail to teach that the resistor is a fixed-value ohmic resistor.

Hasunuma et al. teach a safety device for batteries including a fixed resistor ([0060]).

It has been held that one of ordinary skill in the art would have recognized that the use of a fixed value resistor such as in Hasunuma et al. could be used as the safety device in the battery of Thiele et al. in view of Oosaki et al. and the results of the combination would have been predictable. MPEP 2141 III.

4. Claims 5-7, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thiele et al. in view of Oosaki et al. and Hasunuma et al. as applied to claims 1 and 13 above, and further in view of Yoon (US 5,632,784).

The teachings of Thiele et al., Oosaki et al., and Hasunuma et al. as discussed above are incorporated herein.

Thiele et al. in view of Oosaki et al. and Hasunuma et al. fail to teach the use of a lithium thionyl-chloride battery system.

Yoon teaches a lithium thionyl-chloride battery (column 2 lines 3-5).

The skilled artisan will easily recognize that there is a multitude of different batteries available, and that it is within the ordinary level of skill to substitute one type of a battery for another based on several design and function factors, such as but not limited to, the device for which the battery is being used, any size or temperature requirements for the battery, cost, manufacture, etc. One of ordinary skill in the art could have substituted the battery of Thiele et al. in view of Oosaki et al. and Hasunuma et al. with a lithium thionyl-chloride battery and the results of the substitution would have been predictable. MPEP 2141 III.

As for the rated voltage of the battery in claims 5 and 17, the examiner is of the position that this would be inherent to the thionyl-chloride battery since the chemistry is the same as that of the claimed battery.

With regard to the rated value and power of the resistor in claims 5, 6 and 17, Hasunuma et al. teach that any suitable fixed resistor may be used in the battery system ([0060]). It is the position of the examiner that the skilled artisan would select the most suitable resistor for the battery system, as suggested by Hasunuma et al.

5. Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thiele et al. in view of Oosaki et al. and Hasunuma et al. as applied to claims 1 and 13 above, and further in view of Doljack et al. (US 4,450,496).

The teachings of Thiele et al., Oosaki et al., and Hasunuma et al. as discussed above are incorporated herein.

Thiele et al. in view of Oosaki et al. and Hasunuma et al. fail to teach the materials used to make the resistor.

Doljack et al. teach the use of carbon-film resistors in PTC safety devices (column 10 lines 25-26).

One of ordinary skill in the art could have substituted the carbon-film resistor of Doljack et al. for the resistor of Thiele et al. in view of Oosaki et al. and Hasunuma et al. and the results of the substitution would have been predictable. MPEP 2141 III.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alix Elizabeth Echelmeyer whose telephone number is (571)272-1101. The examiner can normally be reached on Mon-Fri 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PATRICK RYAN/
Supervisory Patent Examiner, Art Unit 1795

Alix Elizabeth Echelmeyer
Examiner
Art Unit 1795

aee